WHAT IS CLAIMED IS

1. A stand for receiving and supporting a hand-supportable laser scanning device in a selected position without user support, said hand-supportable laser scanning device including a hand-supportable housing having a handle portion operably configured with a head portion provided with a light transmissive window and within which a visible laser beam can be generated and projected through said light transmissive window and repeatedly scanned across a scan field defined external to said head portion, said head portion and said handle portion being disposed at an obtuse angle in the range of about 135° to about 180°, said stand including a support frame comprising:

a base portion having a longitudinal extent and being adapted for selected positioning with respect to a support surface;

a head portion support means operably associated with said base portion, for receiving and supporting the head portion of said hand-supportable housing;

a handle portion support means operably associated with said base portion, for receiving and supporting the handle portion of said hand-supportable housing; and

a finger accommodating recess disposed between said head portion support means and said handle portion support means and above said base portion, and being laterally accessible so that when the head and handle portions of said hand-supportable housing are received within and supported by said head portion support means and said handle portion support means, respectively, the fingers of a user's hand can be inserted through said finger accommodating recess and completely encircle the handle portion of said hand-supportable housing, thereby permitting

said handle portion to be completely grasped prior to removing said hand-supportable housing off and away from said support frame.

2. The stand of claim 1, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element for magnetically attracting said first ferrous element when said handle portion is received within said handle portion support means.

3. The stand of claim 1, wherein said hand-supportable housing includes a second ferrous element disposed within said handle portion, and wherein said hand portion support means includes a second magnetic element for magnetically attracting said second ferrous element when said handle portion is received within said head portion support means.

4. The stand of claim 1, wherein said handle portion support means comprises a first support recess having a first substantially planar support surface surrounded by a first pair of perpendicularly extending side walls, for receiving and supporting the handle portion of said hand-supportable housing, and wherein said head portion support means comprises a second support recess having a second substantially planar support surface surrounding a second pair of perpendicularly extending side walls, for receiving and supporting the head portion of said hand-supportable housing.

5. The stand of claim 4, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element for magnetically attracting said first ferrous element when said handle portion is received within said first support recess.

6. The stand of claim 5, wherein said hand-supportable housing includes a second ferrous element disposed within said head portion, and wherein said head portion support means includes a second magnetic element for magnetically attracting said second ferrous element when said head portion is received within said second support recess.

7. The stand of claim 1, wherein said head portion support means comprises means for permitting passage of said visible laser beam through said light transmissive window and across said scan field when the head portion of said hand-supportable housing is received within said head portion support means and the handle portion of said hand-supportable housing is received within said handle portion support means.

8. The stand of claim 7, wherein the head portion of said hand-supportable housing further comprises object detection means including means for transmitting energy into said scan field and means for receiving at least a portion of said transmitted energy so as to detect transmitted energy reflected off an object in said scan field and

activate the scanning of said visible laser beam, and wherein said head portion support means further comprises means for permitting said object detection means to transmit energy into said scan field and receive transmitted energy reflected from said object in said scan field.

9. The stand of claim 8, wherein said base portion further comprises base supporting means for supporting said base portion on a selected support surface.

10. The stand of claim 9, wherein said support frame comprises a molded shell having formed therein, said base portion, said head portion support means and said handle portion support means, and wherein said base supporting means comprises a base plate operably associatable with said base portion so as to form a substantially enclosed interior volume.

11. The stand of claim 10, which further comprises an adaptor module concealed within said substantially enclosed interior volume, for connecting a scanner connector and a communications cable connector, wherein said scanner connector is operably connected to a flexible scanner cable which passes through the base portion of said molded shell and extends into the handle portion of said hand-supportable housing, and wherein said communications cable connector is operably connected to flexible communication connector cable and flexible power supply cable which also pass through the base portion of said molded shell.

12. The stand of claim 11, wherein said adaptor module comprises voltage conversion means for converting the voltage level of said flexible power supply cable to one or more required voltage levels in said flexible scanner cable.

13. The stand of claim 11, wherein said base plate is operably connectable to the base portion of said molded shell by way of snap fit fastening means.

14. The stand of claim 13, wherein said base plate further comprises means for securing said base plate to a support surface selected from the group consisting of a substantially vertically disposed wall surface, a substantially vertically disposed counter wall surface, a substantially horizontally disposed counter surface, and a substantially horizontally disposed work surface.

15. The stand of claim 13, which further comprises pedestal means operably connected to said base plate and supported on said support surface so that when said hand-supportable laser scanning device is received and supported by said support frame, said scan field is arranged in a selected position and orientation with respect to said support surface.

16. A bar code symbol scanning system comprising:

(A) a hand-supportable laser scanning device including:

(1) a hand-supportable housing having a handle portion and a head portion operably connected to said handle portion at an obtuse angle in the range of about 135°

to 180°, said handle portion having a longitudinal extent and dimensions permitting said handle portion to be easily grasped in a user's hand, said head portion having a light transmissive window through which visible light can exit and enter said head portion;

(2) an activatable laser beam source in said head portion for producing, when activated, a visible laser beam directed through said light transmissive window, and into said scan field;

(3) an activatable scanning mechanism in said head portion for repeatedly scanning, when activated, said visible laser beam across said scan field;

(4) light detection means in said head portion for detecting the intensity of laser light reflected off a bar code symbol as said visible laser beam is repeatedly scanned across said scan field and said bar code symbol therein, and for automatically producing scan data indicative of the detected intensity of said reflected laser light; and

(5) flexible scanner cable operably associated with said light detection means and extending from said handle portion and terminating in a scanner connector;

(B) a stand for receiving and supporting said hand-supportable laser scanning device in a selected position without user support, said stand including a support frame comprising,

(1) a base portion having a longitudinal extent and being adapted for selected positioning with respect to a support surface;

(2) a head portion support means operably associated with said base portion, for receiving and supporting the head portion of said hand-supportable housing;

(3) a handle portion support means operably associated with said base portion, for receiving and supporting the handle portion of said hand-supportable housing; and

(4) a finger accommodating recess disposed between said head portion support means and said handle portion support means above said base portion and being laterally accessible so that when the head and handle portions of said hand-supportable housing are received within and supported by said head portion support means and said handle portion support means, respectively, the fingers of a user's hand can be inserted through said finger accommodating recess and completely encircle the handle portion of said hand-supportable housing, thereby permitting said handle portion to be completely grasped prior to removing said hand-supportable housing off and away from said support frame.

17. The bar code symbol scanning system of claim 16, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element which magnetically attracts said first ferrous element when said handle portion is received within said handle portion support means.

18. A bar code symbol scanning system of claim 17, wherein said hand-supportable housing includes a second ferrous element disposed within said handle portion, and wherein said hand portion support means includes a second magnetic element which magnetically attracts said second ferrous element when said handle portion is received within said head portion support means.

19. The bar code symbol scanning system of claim 16, wherein said handle portion support means comprises a first support recess having a first substantially planar support surface surrounded by a first pair of perpendicularly extending side walls, for receiving and supporting the handle portion of said hand-supportable housing, and wherein said head portion support means comprises a second support recess having a second substantially planar support surface surrounding a second pair of perpendicularly extending side walls, for receiving and supporting the head portion of said hand-supportable housing.

20. The bar code symbol scanning system of claim 19, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element which magnetically attracts said first ferrous element when said handle portion is received within said first support recess.

21. The bar code symbol scanning system of claim 20, wherein said hand-supportable housing includes a second ferrous element disposed within said head portion, and

wherein said head portion support means includes a second magnetic element which magnetically attracts said second ferrous element when said head portion is received within said second support recess.

22. The bar code symbol scanning system of claim 16, wherein said head portion support means comprises means for permitting passage of said visible laser beam through said light transmissive window and across said scan field when the head portion of said hand-supportable housing is received within said head portion support means and the handle portion of said hand-supportable housing is received within said handle portion support means.

23. The bar code symbol scanning system of claim 22, wherein the head portion of said hand-supportable housing further comprises object detection means including means for transmitting energy into said scan field and means for receiving at least a portion of said transmitted energy so as to detect transmitted energy reflected off an object in said scan field and produce an activation signal, and wherein said head portion support means further comprises means for permitting said object detection means to transmit energy into said scan field and receive transmitted energy reflected from an object in said scan field.

24. The bar code symbol scanning system of claim 23, wherein said base portion further comprises base supporting means for supporting said base portion on a selected support surface.

25. The bar code symbol scanning system of claim 24, wherein said support frame comprises a molded shell having formed therein said base portion, said head portion support means and said handle portion support means, and wherein said base supporting means comprises a base plate operably associatable with said base portion so as to form a substantially enclosed interior volume.

26. The bar code symbol scanning system of claim 25, which further comprises an adaptor module concealed within said substantially enclosed interior volume, for connecting said scanner connector with a communications cable connector, wherein said scanner connector passes through a first aperture means in the base portion of said molded shell, and wherein said communications cable connector is operably connected to flexible communication cable and flexible power supply cable which passes through a second aperture means in the base portion of said molded shell.

27. The bar code symbol scanning system of claim 26, wherein said adaptor module comprises voltage conversion means for converting the voltage level of said flexible power supply cable to one or more required voltage levels in said flexible scanner cable.

28. The bar code symbol scanning system of claim 26, wherein said base plate is operably connectable to the base portion of said molded shell by way of snap fit fastening means.

29. The bar code symbol scanning system of claim 28, wherein said base plate further comprises means for securing said base plate to a support surface selected from the group consisting of a substantially vertically disposed wall surface, a substantially vertically disposed counter wall surface, a substantially horizontally disposed counter surface, and a substantially horizontally disposed work surface.

30. The bar code symbol scanning system of claim 28, which further comprises pedestal means operably connected to said base plate and supported on said support surface so that when said hand-supportable laser scanning device is received and supported by said support frame, said scan field is arranged in a selected position and orientation with respect to said support surface.

31. The bar code symbol scanning system of claim 23, wherein said hand-supportable laser scanning device further comprises:

(6) processing means for processing produced scan data in order to detect and decode said bar code symbol on said object, and upon detecting and decoding said bar code symbol on said detected object, automatically producing symbol character data representative of said decoded bar code symbol; and

(7) control means for controlling the operation of said bar code symbol scanning system, said control means including

means for automatically activating said activatable laser beam source and said activatable scanning

mechanism for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable laser beam source and said activatable scanning mechanism in response to said scan data processing means failing to detect and decode said bar code symbol on said detected object within said predetermined time period.

32. The bar code symbol scanning system of claim 22, wherein said hand-supportable laser scanning device further comprises:

(6) processing means for processing produced scan data in order to detect and decode said bar code symbol on said object, and upon detecting and decoding said bar code symbol on said detected object, automatically producing symbol character data representative of said decoded bar code symbol; and

(7) control means for controlling the operation of said bar code symbol scanning system, said control means including

means for automatically activating said activatable laser beam source and said activatable scanning mechanism for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable laser beam source and said activatable scanning mechanism in response to said scan data processing means failing to detect and decode said bar code symbol on said detected object within said predetermined time period.

33. A bar code symbol scanning system of claim 16, wherein said hand-supportable bar code symbol scanning device further comprises:

an object detection circuit in said head portion, for detection of an object located within at least a portion of said scan field, said object detection circuit including

means for transmitting pulsed energy into at least a portion of said scan field, and

means for receiving transmitted pulsed energy reflected off said object and automatically generating an activation signal indicative of said object in said scan field.

34. The bar code symbol scanning system of claim 33, which further comprises:

processing means for processing produced scan data in order to detect and decode said bar code symbol on said detected object, and upon detecting and decoding said bar code symbol on said detected object, automatically producing symbol character data representative of said decoded bar code symbol, and

control means for controlling the operation of said automatic bar code symbol reading system, said control means including means for automatically activating said activatable laser beam source and said activatable scanning mechanism for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable laser beam source and said activatable scanning mechanism in response to said processing means failing to

detect and d. ode said bar code symbol on id detected object within said predetermined time period.

35. The bar code symbol scanning system of claim 34, wherein said transmitted pulsed energy is pulsed infrared light produced from a pulsed infrared light source in said head portion, and wherein said pulsed energy receiving means comprise an optical element in said head portion for focusing reflected infrared light pulses onto an infrared light detector in said head portion.

36. A bar code symbol reading system comprising:

(A) a hand-supportable laser scanning device including:

(1) a hand-supportable housing having a handle portion and a head portion operably connected to said handle portion at an obtuse angle, said handle portion having a longitudinal extent and dimensions permitting said handle portion to be easily grasped in a user's hand, said head portion having a light transmissive window through which visible light can exit and enter said head portion;

(2) an activatable laser beam source in said head portion for producing, when activated, a visible laser beam directed through said light transmissive window and into a scan field defined external to said housing, said scan field being characterized as having at least one laser beam scanning plane;

(3) an activatable scanning mechanism in said head portion for repeatedly scanning, when activated, said visible laser beam across said scan field;

(4) light detection means in said head portion for detecting the intensity of laser light reflected off a bar code symbol on an object in said scan field as said visible laser beam is repeatedly scanned across said scan field and said bar code symbol, and for automatically producing scan data indicative of the detected intensity of said reflected laser light;

(5) object detection means in said head portion for detecting the presence of an object within an object detection field defined external to said head portion, said object detection means including means for transmitting energy into said scan field and means for receiving at least a portion of said transmitted energy within said object detection field so as to detect transmitted energy reflected off an object in said object detection field and produce in response thereto an activation signal, said object detection field being characterized as having a substantially volumetric extent and spatially encompassing at least a portion of said scan field within said operative scanning range; and

(6) flexible scanner cable operably connected to said light detection means and extending from said handle portion and terminating in a scanner connector; and

(B) processing means for processing produced scan data in order to detect and decode said bar code symbol on said detected object, and upon detecting and decoding said bar code symbol on said detected object, automatically producing symbol character data representative of said decoded bar code symbol;

c) control means for controlling the operation of said automatic bar code symbol reading system, said control means including

means for automatically activating said activatable laser beam source and said activatable scanning mechanism for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable laser beam source and said activatable scanning mechanism in response to said processing means failing to detect and decode said bar code symbol on said detected object within said predetermined time period.

37. The bar code symbol reading system of claim 36, wherein said object detection means has at least a short-range and a long-range mode of object detection,

wherein, when said object detection means is induced in said short-range mode of object detection, said object detection means is only capable of detecting the presence of an object located within a short-range portion of said object detection field, and

wherein, when said object detection means is induced in said long-range mode of object detection, said object detection means is capable of detecting the presence of an object located anywhere within a long-range portion of said object detection field.

38. The bar code symbol reading system of claim 37, wherein said bar code symbol scanning device further comprises

means for inducing said object detection means in said short-range mode of object detection in response to the presence of a short-range mode activation signal, and for inducing said object detection means in said long-range mode of object detection in response to the presence of a long-range mode activation signal.

39. The bar code symbol reading system of claim 38, which further comprises:

(C) a stand for receiving and supporting said hand-supportable laser scanning device in a selected position without user support, said stand including a support frame comprising,

(1) a base portion having a longitudinal extent and being adapted for selected positioning with respect to a support surface;

(2) a head portion support means operably associated with said base portion, for receiving and supporting the head portion of said hand-supportable housing; and

(3) a handle portion support means operably associated with said base portion, for receiving and supporting the handle portion of said hand-supportable housing.

40. The bar code symbol reading system of claim 39, wherein said hand-supportable laser scanning device further comprises

support frame detection means in said hand-supportable housing, for detecting the placement of said hand-supportable housing in said support frame and

automatically producing said long-range mode activation signal in response thereto, and for detecting the removal of said hand-supportable housing from said support frame and automatically producing said short-range mode activation signal in response thereto.

41. The bar code symbol reading system of claim 40, wherein said support frame further comprises means for generating a magnetic field in the vicinity of said support frame, and wherein said support frame detection means further comprises means for detecting said magnetic field in the vicinity of said support frame and automatically producing said long-range mode activation signal in response to the detection of said magnetic field.

42. The automatic bar code symbol reading system of claim 39, wherein said support frame further comprises:

(4) a finger accommodating recess disposed between said head portion support means and said handle portion support means above said base portion and being laterally accessible so that when the head and handle portions of said hand-supportable housing are received within and supported by said head portion support means and said handle portion support means, respectively, the fingers of a user's hand can be inserted through said finger accommodating recess and completely encircle the handle portion of said hand-supportable housing, thereby permitting said handle portion to be completely grasped prior to removing said hand-supportable housing off and away from said support frame.

43. The bar code symbol scanning system of claim 40, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element which magnetically attracts said first ferrous element when said handle portion is received within said handle portion support means.

44. The bar code symbol scanning system of claim 40, wherein said hand-supportable housing includes a second ferrous element disposed within said handle portion, and wherein said hand portion support means includes a second magnetic element which magnetically attracts said second ferrous element when said handle portion is received within said head portion support means.

45. The bar code symbol scanning system of claim 40, wherein said handle portion support means comprises a first support recess having a first substantially planar support surface surrounded by a first pair of perpendicularly extending side walls disposed on opposite sides of said first substantially supporting planar support surface, for receiving and supporting the handle portion of said hand-supportable housing, and wherein said head portion support means comprises a second support recess having a second substantially planar support surface surrounding a second pair of perpendicularly extending side walls disposed on opposite sides of said second substantially planar support surface, for receiving and supporting the head portion of said hand-supportable housing.

46. The bar code symbol scanning system of claim 45, wherein said hand-supportable housing includes a first ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element for magnetically attracting said first ferrous element when said handle portion is received within said first support recess.

47. The bar code symbol scanning system of claim 39, wherein said hand-supportable housing includes a second ferrous element disposed within said head portion, and wherein said head portion support means includes a second magnetic element for magnetically attracting said second ferrous element when said head portion is received within said second support recess.

48. The bar code symbol scanning system of claim 39, wherein said head portion support means comprises means for permitting passage of said visible laser beam through said light transmissive window and across said scan field when the head portion of said hand-supportable housing is received within said head portion support means and the handle portion of said hand-supportable housing is received within said handle portion support means.

49. The bar code symbol scanning system of claim 48, wherein said base portion further comprises base supporting means for supporting said base portion on a selected support surface.

50. The bar code symbol scanning system of claim 49, wherein said support frame comprises a molded shell having formed therein said base portion, said head portion support means and said handle portion support means, and wherein said base supporting means comprises a base plate operably associatable with said base portion so as to form a substantially enclosed interior volume.

51. The bar code symbol scanning system of claim 50, which further comprises an adaptor module concealed within said substantially enclosed interior volume, for connecting said scanner connector with a communications cable connector, wherein said scanner connector passes through a first aperture means in the base portion of said molded shell, and wherein said communications cable connector is operably connected to flexible communication connector cable and flexible power supply cable which passes through a second aperture means in the base portion of said molded shell.

52. The bar code symbol scanning system of claim 51, wherein said adaptor module comprises voltage conversion means for converting the voltage level of said flexible power supply cable to one or more required voltage levels in said flexible scanner cable.

53. The bar code symbol scanning system of claim 51, wherein said base plate is operably connectable to the base portion of said molded shell by way of snap fit fastening means.

54. The bar code symbol scanning system of claim 50, wherein said base plate further comprises means for securing said base plate to a support surface selected from the group consisting of a substantially vertically disposed wall surface, a substantially vertically disposed counter wall surface, a substantially horizontally disposed counter surface, and a substantially horizontally disposed work surface.

55. The bar code symbol scanning system of claim 50, which further comprises pedestal means operably connected to said base plate and supported on said support surface so that when said hand-supportable laser scanning device is received and supported by said support frame, said scan field is arrangable in a selected position and orientation with respect to said support surface.

56. The bar code symbol scanning system of claim 40, wherein said head portion support means comprises means for permitting passage of said visible laser beam through said light transmissive window and across said scan field when the head portion of said hand-supportable housing is received within said head portion support means and the handle portion of said hand-supportable housing is received within said handle portion support means.

57. The bar code symbol scanning system of claim 56, wherein the head portion of said hand-supportable housing further comprises object detection means including means for transmitting energy into said scan field and means for receiving at least a portion of said transmitted energy so

as to detect transmitted energy reflected off an object in said scan field and activate the scanning of said visible laser beam, and wherein said head portion support means further comprises means for permitting said object detection means to transmit energy into said scan field and receive transmitted energy reflected from an object in said scan field.

58. The bar code symbol scanning system of claim 57, wherein said base plate further comprises means for securing said base plate to a support surface selected from the group consisting of a substantially vertically disposed wall surface, and a substantially vertically disposed counter wall surface.

59. The bar code symbol scanning system of claim 57, which further comprises pedestal means operably connected to said base plate and supported on said support surface so that when said hand-supportable laser scanning device is received and supported by said support frame, said scan field is arranged in a selected position and orientation with respect to said support surface.

60. A bar code symbol reading system comprising:

(A) a hand-supportable laser scanning device including

(1) a hand-supportable housing having a head portion with a light transmissive window through which visible light can exit and enter said head portion;

(2) object detection means in said head portion for detecting the presence of an object within an

object detection field defined external to said head portion, said object detection means including means for receiving energy from said object detection field, and means to automatically generate an activation signal in response to the detection of energy reflected off an object located in said object detection field, said object detection field being characterized by having a three-dimensional geometry of volumetric expanse extending forwardly of said light transmissive window, said object detection means further having at least a short-range and a long-range mode of object detection,

wherein, when said object detection means is induced in said short-range mode of object detection, said object detection means is only capable of detecting the presence of an object located within a short-range portion of said object detection field, and

wherein, when said object detection means is induced in said long-range mode of object detection, said object detection means is capable of detecting the presence of an object located anywhere within a long-range portion of said object detection field;

(3) an activatable laser beam source in said head portion for producing, when activated, a visible laser beam directed through said light transmissive window into a scan field defined external to said housing, said scan field being characterized as having at least one laser beam scanning plane and being spatially encompassed by said object detection field along at least said long and short portions of said object detection field;

(4) an activatable scanning mechanism in said head portion for repeatedly scanning, when activated, said visible laser beam across said scan field;

(5) light detection means in said head portion for detecting the intensity of laser light reflected off a bar code symbol on said detected object as said visible laser beam is repeatedly scanned across said scan field and said bar code symbol, and for automatically producing scan data indicative of the detected intensity of said reflected laser light;

(B) processing means for processing produced scan data in order to detect and decode said bar code symbol on said detected object, and upon detecting and decoding said bar code symbol on said detected object, automatically producing symbol character data representative of said decoded bar code symbol;

(C) control means for ccontrolling the operation of said automatic bar code symbol reading system, said control means including

means for automatically activating said activatable laser beam source and said activatable scanning mechanism for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable laser beam source and said activatable scanning mechanism in response to said processing means failing to detect and decode said bar code symbol on said detected object within said predetermined time period.

61. The bar code symbol reading system of claim 60, which further comprises:

means for inducing said object detection means in said short-range mode of object detection in response to the presence of a short-range mode activation signal, and for inducing said object detection means in said long-range mode of object detection in response to the presence of a long-range mode activation signal.

62. The bar code symbol reading system of claim 61, wherein said hand-supportable housing further comprises a handle portion operably configured with said head portion and which can be easily grasped within a user's hand, and wherein said bar code symbol reading system comprises:

a stand for receiving and supporting said hand-supportable laser scanning device in a selected position without user support, said stand including a support frame comprising,

a base portion having a longitudinal extent and being adapted for selected positioning with respect to a support surface,

a head portion support means operably associated with said base portion, for receiving and supporting the head portion of said hand-supportable housing, and

a handle portion support means operably associated with said base portion, for receiving and supporting the handle portion of said hand-supportable housing.

63. The bar code symbol reading system of claim 62, wherein said hand-supportable laser scanning device further comprises

support frame detection means in said hand-supportable housing, for detecting the placement of said

hand-supportable housing in said support frame and automatically producing said long-range mode activation signal in response thereto.

64. The bar code symbol reading system of claim 63, wherein said support frame further comprises means for generating a magnetic field in the vicinity of said support frame, and wherein said support frame detection means further comprises means for detecting said magnetic field in the vicinity of said support frame and automatically producing said long-range mode activation signal in response to the detection of said magnetic field.

65. The bar code symbol reading system of claim 62, wherein said support frame further comprises:

(4) a finger accommodating recess disposed between said head portion support means and said handle portion support means above said base portion and being laterally accessible so that when the head and handle portions of said hand-supportable housing are received within and supported by said head portion support means and said handle portion support means, respectively, the fingers of a user's hand can be inserted through said finger accommodating recess and completely encircle the handle portion of said hand-supportable housing, thereby permitting said handle portion to be completely grasped prior to removing said hand-supportable housing off and away from said support frame.

66. The bar code symbol scanning system of claim 43, wherein said hand-supportable housing includes a first

ferrous element disposed within said handle portion, and wherein said handle portion support means includes a first magnetic element which magnetically attracts said first ferrous element when said handle portion is received within said handle portion support means.

67. The bar code symbol scanning system of claim 62, wherein said hand-supportable housing includes a second ferrous element disposed within said handle portion, and wherein said hand portion support means includes a second magnetic element which magnetically attracts said second ferrous element when said handle portion is received within said head portion support means.

68. The bar code symbol scanning system of claim 62, wherein said handle portion support means comprises a first support recess having a first substantially planar support surface surrounded by a first pair of perpendicularly extending side walls disposed on opposite sides of said first substantially supporting planar support surface, for receiving and supporting the handle portion of said hand-supportable housing, and wherein said head portion support means comprises a second support recess having a second substantially planar support surface surrounding a second pair of perpendicularly extending side walls disposed on opposite sides of said second substantially planar support surface, for receiving and supporting the head portion of said hand-supportable housing.

69. The bar code symbol scanning system of claim 62, wherein said head portion support means comprises means for

permitting passage of said visible laser beam through said light transmissive window and across said scan field when the head portion of said hand-supportable housing is received within said head portion support means and the handle portion of said hand-supportable housing is received within said handle portion support means.

70. The bar code symbol scanning system of claim 62, wherein said base portion further comprises base supporting means for supporting said base portion on a selected support surface.

71. The bar code symbol scanning system of claim 70, wherein said support frame comprises a molded shell having formed therein said base portion, said head portion support means and said handle portion support means, and wherein said base supporting means comprises a base plate operably associated with said base portion so as to form a substantially enclosed interior volume.

72. The bar code symbol scanning system of claim 71, wherein said base plate further comprises means for securing said base plate to a support surface selected from the group consisting of a substantially vertically disposed wall surface, a substantially vertically disposed counter wall surface, a substantially horizontally disposed counter surface, and a substantially horizontally disposed work surface.

73. The bar code symbol scanning system of claim 71, which further comprises pedestal means operably connected to

said base plate and supported on said support surface so that when said hand-supportable laser scanning device is received and supported by said support frame, said scan field is arrangable in a selected position and orientation with respect to said support surface.

74. The bar code symbol scanning system of claim 62, wherein the head portion of said hand-supportable housing further comprises object detection means including means for transmitting energy into said scan field and means for receiving at least a portion of said transmitted energy so as to detect transmitted energy reflected off an object in said scan field and activate the scanning of said visible laser beam, and wherein said head portion support means further comprises means for permitting said object detection means to transmit energy into said scan field and receive transmitted energy reflected from an object in said scan field.

75. The bar code reading system of claim 61, wherein said processing means has at least a short-range and a long-range mode of bar code scan range detection,

wherein, when said processing means is induced in said long-range mode of bar code scan range detection, said data processing means is only capable of producing symbol character data representative of a detected and decoded bar code symbol which is located within a prespecified long-range portion of said object detection field; and

wherein, when said processing means is induced in said short-range mode of bar code scan range detection, said processing means is only capable of producing symbol

character data representative of a detected and decoded bar code symbol which is located within a prespecified short-range portion of said scan field.

76. The bar code symbol reading system of claim 75, wherein said processing means further comprises

scan range detection means for processing produced scan data to determine whether a detected and decoded bar code symbol resides within the short-range portion or the long-range portion of said scan field.

77. The bar code symbol reading system of claim 76, wherein, when said processing means is induced in said short-range mode of bar code scan range detection, said processing means automatically produces symbol character data representative of said decoded bar code symbol only

(i) upon detecting and decoding said scanned bar code symbol on said detected object, and

(ii) when said bar code scan range detection means determines that said detected and decoded bar code symbol resides within the short-range portion of said scan field.

78. The bar code symbol reading system of claim 77, wherein, when said processing means is induced in said long-range mode of bar code scan range detection, said processing means automatically produces symbol character data representative of said decoded bar code symbol only

(i) upon detecting and decoding said scanned bar code symbol on said detected object, and

(11) when said bar code scan range detection means determines that said detected and decoded bar code symbol resides within the long-range portion of said scan field.

79. The bar code symbol reading system of claim 61, wherein said processing means has at least a short-range and a long-range mode of bar code scan range detection,

wherein, when said processing means is induced in said short-range mode of bar code scan range detection, said processing means is only capable of reading a detected bar code symbol located within a short-range portion of said scan field; and

wherein, when said processing means is induced in said long-range mode of bar code scan range detection, said data processing means is capable of reading a detected bar code symbol located within a long-range portion of said scan field.

80. The bar code symbol reading system of claim 79, wherein said processing means further comprises:

scan range detection means for processing produced scan data to determine whether a detected and decoded bar code symbol resides within the short-range portion or the long-range portion of said scan field.

81. The bar code symbol reading system of claim 75, which further comprises:

means for inducing said processing means in said short-range mode of bar code scan range detection in response to the presence of said short-range mode activation signal, and for inducing said processing means in said long-

range mode of bar code scan range detection in response to the presence of a long-range mode activation signal.

82. The bar code symbol reading system of claim 81, which further comprises:

a stand for receiving and supporting said hand-supportable laser scanning device in a selected position without user support, said stand including a support frame including,

a base portion having a longitudinal extent and being adapted for selected positioning with respect to a support surface,

a head portion support means operably associated with said base portion, for receiving and supporting the head portion of said hand-supportable housing, and

a handle portion support means operably associated with said base portion, for receiving and supporting the handle portion of said hand-supportable housing.

83. The bar code symbol reading system of claim 82, wherein said support frame further comprises means for generating a magnetic field in the vicinity of said support frame, and wherein said support frame detection means further comprises means for detecting said magnetic field in the vicinity of said support frame and automatically producing said long-range mode activation signal in response to the detection of said magnetic field.

84. An automatic bar code symbol reading system, comprising:

a hand-supportable housing having a light transmission aperture through which visible light can exit and enter into said hand-supportable housing;

object detection means in said hand-holdable housing, for detecting an object located in an object detection field defined external to said to said hand-supportable housing, said object detection means including,

an infrared light emitting diode disposed in said hand-supportable housing for transmitting pulsed infrared light into said scan field,

an aperture formed in said hand-supportable housing,

an infrared light photodiode disposed in said hand-supportable housing immediately adjacent to said aperture in order to directly determine the geometrical characteristics and dimensions of said object detection field, and for detecting said pulsed infrared light reflected off an object located in said object detection field, and

means for automatically generating an activation signal in response to the detection of pulsed infrared light reflected off said object in said object detection field by said infrared light photodiode;

activatable scan data producing means in said hand-supportable housing, for producing scan data from a detected object located in a scan field defined external to said hand-supportable housing, scan field being characterized as having at least one laser beam scanning plane and being spatially encompassed by said object detection field along at least a portion of said scan field, said scan data producing means including,

a laser diode for generating a visible laser beam,

means for directing said visible laser beam through said light trransmission aperture and into said scan field,

laser beam scanning means for repeatedly scanning said visible laser beam across said scan field and a bar code symbol on said detected object,

laser light detecting means for detecting the intensity of laser light reflected off said bar code symbol and passing through said light transmission aperture as said visible laser beam is repeatedly scanned across said scan field and said bar code symbol on said detected object, and

means for automatically producing scan data indicative of said detected intensity;

activatable scan data processing means for processing produced scan data in order to detect and decode said bar code symbol on said detected object, and automatically producing symbol character data representative of said decoded bar code symbol; and

control means for controlling the operation of said automatic bar code symbol reading system, said control means including,

means for automatically activating said activatable data producing means and said activatable scan data processing means for up to a predetermined time period in response to the generation of said activation signal, and

means for automatically deactivating said activatable scan data producing means and said activatable scan data processing means in response to the failure of said scan data processing means to detect and decode said

bar code symbol on said detected object within said predetermined time period.